REMARKS

Claims 11, 39 and 50 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant did not appeal these claims. Applicant expressly stated in the Appeal Brief that claims 11, 39 and 50 are not appealed. (Appeal Brief, page 1, Section (3)). Furthermore, the Examiner earlier informed Applicant, through their attorney, that the Examiner would refuse to enter an amendment canceling these claims before Applicant filed their Brief. Therefore, Applicant did not file the amendment but also did not appeal claims 11, 39 and 50. Applicant now cancels claims 11, 39 and 50.

Claims 1-7, 30-35 and 41-46 stand rejected under 35 U.S.C 101 as being directed to the same invention as that of claims 20-23 of the commonly assigned U.S. Patent No. 6,342,528 issued to McKenzie, *et al.* (hereinafter McKenzie '528). Claims 1-7, 30-35 and 41-46 stand rejected under 35 U.S.C 101 as being directed to the same invention as that of claims 11 and 15 of the commonly assigned U.S. Patent No. 6,518,307 issued to McKenzie, *et al.* (hereinafter McKenzie '307).

Applicant claims a method of preparing a sterilizing solution comprising, *inter alia*, storing dry solid material comprising one or more dipercarboxylic acids and dissolving the material into water to prepare an aqueous sterilizing solution. (Claim 1, 30 and 41). Claim 6 specifically claims that the sterilizing solution is substantially free of hydrogen peroxide. Claim 30 further claims the element "in the absence of a peroxide."

McKenzie '307 claims a biocide for ingestion by live animals comprising, *inter alia*, an inorganic acid having from one to eight carbon atoms, an inorganic peroxide compound and defoaming agents and/or sequestrants. (McKenzie '307, claims 11 and 15).

McKenzie '528 claims a method comprising, *inter alia*, administering an effective dose of a peracid in an aqueous solution to the gastrointestinal tract of an animal. (McKenzie '528, claim 20). McKenzie '528 further claims a biocide for ingestion by live animals comprising, *inter alia*, an aqueous solution of a peracid having certain concentrations. (McKenzie '528, claims 21, 22).

McKenzie '528 further claims a biocide for ingestion by live animals formed by, *inter alia*, combining an organic acid and an inorganic peroxide. (McKenzie '528, claim 23) various additives and their concentration levels for defoaming agents, stabilizing agents, and surfactants as well as claiming that the animals are selected from humans or other vertebrate animals. (McKenzie, claims 20-23, 11 and 15).

Therefore, Applicant claims a *method* that includes the element of storing a dry solid material. Both McKenzie '528 and McKenzie '307 claim a *biocide*. McKenzie '528 further claims a *method* that includes administering an effective dose of a peracid to an animal.

In the case *In re Vogel*, 422 F.2d 438, the courts have provided instructions for determining whether a statutory double patenting rejection is proper:

> The first question is: Is the same invention being claimed twice? . . . By "same invention" we mean identical subject matter. . . . A good test, and probably the only objective test, for "same invention," is whether one of the claims could be literally infringed without literally infringing the other. If it could be, the claims do not define identically the same invention.

Id. at 441.

As the MPEP explains, citing *Vogel, supra*:

> A reliable test for double patenting under 35 U.S.C. 101 is whether a claim in the application could be literally infringed without literally infringing a corresponding claim in the patent. Is there an embodiment of the invention that falls within the scope of one claim but not the other? If there is such an embodiment, then identical subject matter is not defined by both claims and statutory double patenting would not exist.

Id. at § 804.II.A

Applicant respectfully asserts that, using the test prescribed by the court and by the MPEP, that the independent claims 1, 30 and 41 are not the same invention as those of the McKenzie patents cited by the Examiner. Applicant claims a method and McKenzie claims a biocide for ingestion for live animals. The only method claimed in either of the McKenzie patents cited by the Examiner occurred in McKenzie '528 and that method requires that an effective amount of a peracid be

administered into the gastrointestinal tract of an animal. (McKenzie '528, claim 20). There is no mention in any of the McKenzie claims the element claimed by Applicant in each of the rejected independent claims – "storing dry solid material."

Any embodiment of Applicant's invention that includes storing dry solids will fall within the scope of Applicant's invention as claimed in independent claims 1, 30 and 41 but will not fall within any of McKenzie's claimed inventions. Therefore, the two inventions are not the same. Reconsideration and withdrawal of the rejection of independent claims 1, 30 and 41 is respectfully requested as well as the dependent claims depending therefrom.

Claims 1-11, 17 and 26-51 stand rejected under 35 U.S.C. 102(b) and 35 U.S.C. 102(f) as being anticipated by U.S. Patent No. 5,200,189 issued to Oakes, *et al.* and also under U.S. Patent No. 5,049,298 issued to Ploumen, *et al.*

The Examiner noted in the Office Action that Applicant had attacked each reference individually in the Appeal Brief and cited case law holding that "One cannot show nonobviousness by **attacking references individually** where the rejections are based on combinations of references." (Office Action, p. 7, citations omitted)[Emphasis in original]. Applicant respectfully points out that the Examiner is citing Oakes and Ploumen in a rejection for anticipation and not obviousness. The citations that the Examiner provided to prevent Applicant from attacking each reference individually apply only to obviousness rejections.

MPEP § 2131 provides:

> "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the . . . claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236 (Fed. Cir. 1989). The elements must be arranged as required by the claim, but this is not an *ipsissimis verbis* test, *i.e.*, identity of terminology is not required. *In re Bond*, 910 F.2d 831 (Fed. Cir. 1990).

Furthermore, the Federal Circuit held in *Paperless Accounting, Inc. v. Bay Area Rapid Transit Systems*, 804 F.2d 659 (Fed. Cir. 1986): "[A] §102(b) reference must sufficiently describe the claimed invention to have placed the public in possession of it." *Id.* at 665.

Additionally, the MPEP teaches:

> Normally, only one reference should be used in making a rejection under 35 U.S.C. 102. However, a 35 U.S.C. rejection over multiple references has been held to be proper when the extra references are cited to:
> (A) Prove the primary reference contains an "enabled disclosure;"
> (B) Explain the meaning of a term used in the primary reference; or
> (C) Show that a characteristic not disclosed in the reference is inherent.

Id. at § 2131.01

Applicant claims a method comprising, *inter alia*, storing dry solid material comprising one or more dipercarboxylic acid and *dissolving* the dry solid material into water as needed to prepare an aqueous solution. (Claims 1, 30 and 41).

Ploumen discloses bleaching granules containing a solid, *water-insoluble* peroxy acid. (Ploumen, Abstract). Ploumen discloses a process that comprises, *inter alia*, mixing a water-insoluble organic peroxy acid and a hydratable inorganic material. . . (Ploumen, col. 2, lines 45-55). Ploumen discloses preferred water-insoluble peracids. (Ploumen, col. 4, lines 50-68). Ploumen further discloses that when these water-insoluble peracids are formed into granules with other materials, the granules are dissolved in water by conversion of the peracid into its soluble neutralized salt, thereby forming a solution that has peracid content at all. (Ploumen, col. 7, lines 15-20).

Oakes discloses a peroxyacid antimicrobial concentrate that can be diluted with water to form a composition useful for sanitizing fixed processing lines in dairies, breweries and other food processing operations. (Oakes, Abstract). Oakes discloses a concentrate composition which is diluted to a use solution prior to its utilization as a sanitizer. (Oakes, col. 6, lines 24-26). Oakes further discloses that the peroxyacid component is obtained by reacting carboxylic acids with hydrogen peroxide to form a concentrate that is then diluted with water to provide a use solution.

(Oakes, col. 6, lines 39-51). Oakes discloses peroxyacids that were tested by diluting them with water. (Oakes, col. 8, Table I).

Applicant cannot find in either of the cited references any mention of storing the dipercarboxylic acid as a solid and then dissolving it in water as claimed by Applicant. (Claims 1, 35, 41). The Examiner does not state in the Office Action that this limitation exists in either of the cited references. Oakes merely discloses that *solutions* of dipercarboxylic acids may be diluted as a useful sterilization solution. In particular, the Examiner emphasizes claim 2 of Oakes. (Office Action, p. 6). However, claim 2 of Oakes merely claims a liquid concentrate that can be diluted with water. Ploumen only discloses water-insoluble acids used in bleach granules that are dissolved only by converting the peracids to the neutralized salt.

Since neither of the cited references disclose Applicant's claimed element of storing a solid material comprising dipercarboxylic acid and dissolving the material in water to form a solution having a dipercarboxylic acid concentration of between about 0.1 weight percent and saturation, Applicant respectfully asserts that a *prima facie* case of anticipation has not been presented. Reconsideration and withdrawal of the rejection is respectfully requested.

Claims 1-11, 17 and 26-51 stand rejected under 35 U.S.C. 102(e) and 35 U.S.C. 102(f) as being anticipated by U.S. Patent No. 6,518,307 issued to McKenzie, *et al.* Claims 1-11, 17 and 26-51 stand rejected under 35 U.S.C. 102(e) and 35 U.S.C. 102(f) as being anticipated by U.S. Patent No. 6,342,528 issued to McKenzie *et al.*

Applicant addresses these two rejections together since the '307 patent is a continuation of the '528 patent and the disclosures are, therefore, identical. All citations to McKenzie made by Applicant in the following remarks will be from the '307 patent as to column and line numbers unless otherwise stated.

McKenzie discloses using peracids in preparations for controlling microbial populations in the gastrointestinal tract of animals. (McKenzie, Abstract). McKenzie discloses that peroxy acids may be formulated as solutions by mixing acids with hydrogen peroxide. (McKenzie, col. 9, line 64

through col. 10, line 28). McKenzie further discloses that these liquid solutions of peroxyacids can then be diluted with water to obtain various desired wt% concentrations of the peracid. *Id.*

Applicant claims, *inter alia*, storing a dry solid material comprising one or more dipercarboxylic acid and dissolving the dry material into water. (Claims 1, 35, 41).

As stated, *supra*, "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference." (MPEP § 2131) Because McKenzie does not set forth the element of storing a dry solid material comprising one or more dipercarboxylic acids and dissolving the dry material into water, Applicant respectfully asserts that McKenzie does not provide a *prima facie* case of anticipation. Reconsideration and withdrawal of the rejections are respectfully requested.

Claims 1-11, 17 and 26-51 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,200,189 issued to Oakes, *et al.* and U.S. Patent No. 5,049,298 issued to Ploumen, *et al.*

Applicant has provided summaries of Oakes and Ploumen under the remarks addressing the 102(b) rejection, *supra*.

To establish a *prima facie* case of obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 985 (CCPA 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 1385 (CCPA 1970).

As discussed in the remarks concerning the rejections under 102(b), the combination of the cited references do not suggest or teach storing a dry solid material comprising a dipercarboxylic acid and dissolving the material into water to form a solution having a dipercarboxylic acid concentration between 0.1 wt% and saturation, which are limitations claimed by Applicant. (Claims 1, 35, 41). Applicant's claimed invention requires that the stored dipercarboxylic acid is dissolved in water to form a solution of dipercarboxylic acid.

Ploumen discloses storing non-water soluble dipercarboxylic acids and Oakes discloses

storing a liquid. Neither of the cited prior art references teach nor suggest that a water-soluble diperacid may be stored and dissolved in sufficient quantity to form a solution having a concentration of 0.1 wt% dipercarboxylic acids. Ploumen actually discloses that the non-water soluble acids disclosed therein do not dissolve as acids but as salts.

Because neither of the cited prior art references teach nor suggest in combination each and every limitation claimed by Applicant, Applicant respectfully asserts that a *prima facie* case of obviousness has not been presented. Reconsideration and withdrawal of the rejection of independent claims 1, 35 and 41 is respectfully requested as well as for the dependent claims depending therefrom.

Claims 1-11, 17 and 26-51 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,415,668 issued to Lagnemo, *et al.* Lagnemo discloses diacylated dipercarboxylic acids that are useful as a bleach. (Abstract). Diacylated dipercarboxylic acids are not dipercarboxylic acids but are instead dipercarboxylic that have been reactants in a chemical reaction to form an ester, the structure of which is shown in the Abstract. (Lagnemo, Abstract). Lagnemo discloses that there are some diacylated dipercarboxylic acids that are useful as bleaches because they are soluble in water to concentrations useful as a bleach. (Lagnemo, col. 2, lines 20-47). Lagnemo further discloses that a useful bleaching amount is 0.12 g of a diacylated dipercarboxylic acid or double that amount, 0.24 g, per 1000 ml of water. (Lagnemo, col. 18, lines 16-35). Such a formulation yields about 0.024 wt% diacylated dipercarboxylic acid in water. Furthermore, Lagnemo discloses that the ester undergoes hydrolysis when placed in water so that it breaks down into both dipercarboxylic acids and percarboxylic acids and when hydrogen peroxide is present, forms 2 moles of percarboxylic acid and one mole of dipercarboxylic acid. (Lagnemo, col. 2, lines 10-20).

Lagnemo does not suggest or teach that the diacylated dipercarboxylic acids can be dissolved in water at a concentration high enough to form a sterilizing solution, *i.e.*, greater than 0.1 wt% as claimed by Applicant. The amount of dipercarboxylic acid needed to form a bleaching solution is

much less than the amount needed to form a sterilizing solution.

Because Lagnemo fails to teach or suggest each and every limitation claimed by Applicant, reconsideration and withdrawal of the rejection is respectfully requested.

Attached are declarations from the inventors addressing the 102(f) rejections made by the Examiner, *supra*. Reconsideration and withdrawal of these rejections is respectfully requested.

In conclusion, Applicant submits that all the remaining claims in the present application are entitled to allowance and such action is earnestly solicited. In the event there are additional charges in connection with the filing of this Response, the Commissioner is hereby authorized to charge the Deposit Account No. 50-0714/LYNN/0120 of the firm of the below-signed attorney in the amount of any necessary fee.

Respectfully submitted,

Frank J. Campigotto
Attorney for Applicant
Registration No. 48,130
STREETS & STEELE
13831 Northwest Freeway, Suite 355
Houston, Texas 77040
(713) 939-9444
Customer No. 24945